

Listing of Claims:

This listing of claims reflects all claim amendments and replaces all prior versions, and listings, of claims in the application (material to be inserted in amended claims is in **bold and underline**, and material to be deleted is in ~~strikeout~~).

1. (Currently Amended) A needle-free jet injection device for delivering a fluid into an internal organ, the device comprising:

a rigid end effector **having a shape and** including a plurality of orifices, the end effector including a rigid interior wall that defines a rigid fluid channel, **where the end effector is sufficiently rigid to maintain its shape during use,** where the fluid channel has a cross section through which a central axis of the end effector extends, and where the end effector is configured to enable fluid to flow from the fluid channel out through the plurality of orifices;

a fluid reservoir in fluid communication with the end effector; and

an ejection mechanism adapted to eject the fluid from the fluid reservoir through the end effector and out of the orifices with sufficient pressure to penetrate the organ while preserving functionality of the organ, where the end effector extends away from the ejection mechanism such that an operative end of the end effector is spaced from the ejection mechanism.

2. (Original) The device of claim 1, wherein the end effector includes a straight shaft section and a distal section.

3. (Original) The device of claim 2, wherein at least some of the orifices are located in the distal section.

4. (Original) The device of claim 3, wherein all of the orifices are located in the distal section.

5. (Original) The device of claim 1, wherein the ejection mechanism is further adapted to allow the device to eject multiple doses of fluid without refilling the fluid reservoir.

6. (Original) The device of claim 1, wherein the pressure with which the fluid is ejected through the orifice is sufficient to cause a transmural lesion in the organ.

7. (Original) The device of claim 6, wherein the organ is a heart.

8. (Original) The device of claim 7, wherein the fluid includes ethanol.

9. (Original) The device of claim 6, wherein the transmural lesion is sufficient to prevent electrical signals from traveling through the transmural lesion.

10. (Original) The device of claim 1, wherein length of the end effector is between four and ten inches.

11. (Original) The device of claim 1, wherein the outer diameter of the end effector is between 0.100 and 0.300 inches.

12. (Original) The device of claim 1, wherein the inner diameter of the end effector is between 0.050 and 0.275 inches.

13. (Original) The device of claim 2, wherein the length of the distal section is between 0.50 and 2.00 inches.

14. (Original) The device of claim 2, wherein the distal section lies at an angle between 30 and 90 degrees relative to the shaft.

15. (Original) The device of claim 2, wherein the distal section lies at a 45 degrees angle relative to the shaft.

16. (Original) The device of claim 1, wherein at least some of the orifices are arranged linearly along the length of the end effector.

17. (Original) The device of claim 1 wherein the orifices are arranged in multiple rows along the length of the end effector.

18. (Original) The device of claim 1 wherein the rows are offset from each other.

19. (Currently Amended) An end effector for a needle-free injection device adapted to inject a fluid into an internal organ while maintaining functionality of the organ, the end effector **having a shape and** comprising a rigid elongate shaft that extends away from the injection device and that includes a tubular fluid channel fluidly and directly coupled with a plurality of orifices through which the fluid may be ejected, **where the end effector is sufficiently rigid to maintain its shape during use,** where the tubular fluid channel has a cross section through which a central axis of the end effector extends, and where the tubular fluid channel includes a rigid portion extending substantially all the way between the injection device and the plurality of orifices.

20. (Original) The device of claim 19, wherein the end effector includes a straight section and a distal section.

21. (Original) The device of claim 19, wherein the orifices are arranged linearly along the length of the end effector.

22. (Original) The device of claim 21, wherein at least some of the orifices are located in the distal section.

23. (Original) The device of claim 22, wherein all of the orifices are located in the distal section.

24. (Original) The device of claim 21, wherein the distal section is angled relative to the straight section.

25. (Original) The device of claim 21, wherein the distal section is curved.

26-32. (Cancelled).

33. (Previously presented) The device of claim 1, wherein the fluid channel is cylindrical.

34. (New) The device of claim 1, wherein a distal end of the end effector includes a blunt distal end.

35. (New) The device of claim 1, wherein at least some of the orifices are oriented in a direction generally lateral to the central axis of the end effector.

36. (New) The device of claim 35, wherein all of the orifices are oriented in a direction generally lateral to the central axis of the end effector.

37. (New) The device of claim 6, wherein the pressure with which the fluid is ejected through the orifice is less than about 4000 psig.

38. (New) The device of claim 37, wherein the pressure with which the fluid is ejected through the orifice is less than about 2100 psig.

39. (New) The device of claim 38, wherein the pressure with which the fluid is ejected through the orifice is less than about 1100 psig.